

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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D1 1. (previously presented) Apparatus for unloading containers for rod-like articles, comprising:

a carrier for receiving a full container in a receiving position in a first orientation; and

means for moving the carrier to an unloading position at which the carrier is in a second orientation, the moving means including means for translating the carrier and means for rotating the carrier, wherein the translating means and rotating means are independently controlled and are adapted to operate concurrently.

2. ~~(canceled)~~

3. (previously presented) Apparatus as claimed in claim 1, wherein the translating means moves the carrier along a substantially linear path.

4. (previously presented) Apparatus as claimed in claim 1, wherein the receiving and unloading positions are substantially at the same level.

5. (previously presented) Apparatus as claimed in claim 1, wherein the rotating means is effective to rotate the carrier so that a container is rotated between said first and second orientations.

6. (previously presented) Apparatus as claimed in claim 1, wherein the translating means and rotating means are each reversible.

7. (previously presented) Apparatus as claimed in claim 6, further including transfer means for receiving an unloaded container from said carrier at a position intermediate said unloading position and said receiving position.

D, 8. (previously presented) Apparatus as claimed in claim 1, wherein the carrier comprises a carriage slidable between said receiving and unloading positions and a rotatable carrier mounted on the carriage.

9. (previously presented) Apparatus as claimed in claim 1, wherein the position at which the translating means locates the carrier at the unloading position is determined by reference to a dimension of the container or its contents.

10. (previously presented) Apparatus as claimed in claim 1, wherein the translating means and rotating means are arranged such that initial movement of the container away from the receiving position includes both translational and rotational components.

11. (previously presented) Apparatus as claimed in claim 1, wherein at least one of the translating means and the rotating means includes means for moving the carrier to a preferred position following a stoppage of said apparatus.

12. (previously presented) Apparatus as claimed in claim 11, wherein said carrier moving means includes means for interrogating at least one detector for the position of the carrier and for subsequently moving said carrier to a reference position in a direction determined by the results of said interrogation.

13. (previously presented) Apparatus as claimed in claim 1, said means for moving the carrier to an unloading position being configured such that said articles are unloaded through an open end of said container, and further comprising means for conveying unloaded articles away from the unloading position along a path, wherein the conveying means extend substantially across said open end at said unloading position except at said path.

14. (previously presented) Apparatus as claimed in claim 13, wherein the extent of said path at said unloading position is substantially less than the extent of said open end, so that the conveying means extends across a substantial part of the width of said open end.

15. (previously presented) Apparatus as claimed in claim 13 or claim 14, wherein the container is so orientated at said unloading position that said open end and said conveying means extend substantially horizontally with said conveying means immediately below said open end.

16. (previously presented) Apparatus as claimed in claim 13 or claim 14, including means for controlling articles in the path such that articles already unloaded in the

path may be maintained at a level which is substantially the same as that of the conveying means.

17. (previously presented) Apparatus as claimed in claim 13 or claim 14, wherein the conveying means comprises endless band conveyor means.

18. (previously presented) Apparatus as claimed in claim 17, wherein the endless band conveyor means comprises opposed bands defining said path between confronting ends.

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19. (previously presented) Apparatus for unloading containers of rod-like articles, comprising means for delivering a container to an unloading position, and means for conveying unloaded articles away from the unloading position, wherein the conveying means is driven at a first relatively high speed during a first phase during which a first, major part of the contents of a container is unloaded and at a second, lower speed during a second phase during which the remainder of the contents of a container is unloaded.

20. (previously presented) Apparatus as claimed in claim 19, wherein the transition between said first and second phases takes place dependent on a signal from detector means sensing the presence of adjacent articles in or from an unloading container.

21. (previously presented) Apparatus as claimed in claim 20, wherein the conveying means includes first conveyor means immediately adjacent the unloading container

and second conveyor means downstream of said first conveyor means for conveying away a multi-layer stream of articles.

22. (previously presented) Apparatus as claimed in claim 21, wherein the ratio of speeds of the first and second conveyor means differs in said first and second phases.

23. (previously presented) Apparatus as claimed in claim 19 or claim 20, wherein said first speed is variable and said second speed is fixed.

D, 24. (previously presented) Apparatus as claimed in claim 23, wherein said first speed is determined in accordance with signals derived from receiving means downstream of said conveying means.

25. (previously presented) Apparatus as claimed in claim 19 or claim 20, including further detector means for stopping the conveying means substantially when the contents of the container have been unloaded.

26. (previously presented) Apparatus as claimed in claim 25, wherein the further detector means comprises a level detector arranged in the path of unloading articles immediately downstream of the unloading position.

27. (previously presented) Apparatus as claimed in claim 19 or claim 20, including a variable capacity reservoir for receiving articles from the conveying means, including at least one sensor for detecting the relative capacity of the reservoir, and further

including means for controlling the conveying means in accordance with signals derived from the sensor.

28. (previously presented) Apparatus as claimed in claim 13, wherein the conveying means is driven at a first relatively high speed during a first phase during which a first, major part of the contents of the container is unloaded and at a second, lower speed during a second phase during which the remainder of the contents of the container is unloaded.

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29. ~~(canceled)~~

30. (currently amended) Apparatus for unloading open-top containers of rod-like articles, said apparatus comprising:

a plurality of slideways comprising linear actuators;

a tray carriage supported on said slideways, such that said tray carriage is capable of sliding linearly relative to said slideways between a pick-up position and an unloading position;

a first servo drive motor adapted for driving said linear actuators;

a tray carrier which is adapted to receive an open-top container of rod-like articles, said tray carrier being supported on said tray carriage, and being pivotable relative to said tray carriage through about 180° between a first position ~~at~~in which it can receive an upright container at said pick-up position, and a second position ~~at~~in which it maintains an inverted carrier at said unloading position, said tray carrier comprising a plurality of clamps which are selectively operable for clamping a

container in place on the tray carrier, and a retractable release plate that can be arranged for covering an open top of a container on the tray carrier;

a second servo drive motor for rotating said tray carrier between said first and second positions;

wherein said first and second servo drive motors are adapted to provide simultaneous, independent control of the linear movement of the tray carriage and rotational movement of the tray carrier.

D, 31. (previously presented) Apparatus as claimed in claim 30, wherein said first and second servo drive motors are adapted to allow the relative rates and positions at which said linear and rotational movements take place to be varied in accordance with parameters associated with the articles in the containers.

32. (previously presented) Apparatus as claimed in claim 30, wherein said first servo drive motor is reversible.

33. (previously presented) Apparatus as claimed in claim 30, wherein said second servo drive motor is reversible.

34. (previously presented) Apparatus as claimed in claim 30, further comprising an empty tray conveyor for removing empty trays, and an empty tray transfer mechanism that is adapted to receive an empty tray from the tray carrier at a position intermediate said pick-up position and said unloading position, and deposit said empty tray on said empty tray conveyor.